LAW OFFICES
KELLER AND HECKMAN LLP
1001 G STREET, N.W.
SUITE 500 WEST
WASHINGTON, D.C. 20001
TELEPHONE (202) 434-4100
FACSIMILE (202) 434-4646

25 RUE BLANCHE
B-1060 BRUSSELS
TELEPHONE 32(2) 541 05 70
FACSIMILE 32(2) 541 05 80

WWW.KHLAW.COM

(202) 434-4144
bercovici@khlaw.com

August 21, 2000

Vernon A. Williams
Secretary
Surface Transportation Board
1925 K Street, N.W.
Suite 700
Washington, DC 20423

EP 582-SUB1

Re: UP/SP Merger, STB Finance Docket No. 32760(Sub-No. 21), General Oversight; Request for Acceptance of Late Filed Comments

Dear Mr. Williams:

On behalf of Arkansas Electric Cooperative Corporation we are submitting herewith an original and ten copies of comments in the UP/SP merger General Oversight proceeding.

These comments were due to be filed on August 18, 2000. We were unable to complete the filing in time to arrive at the Board before the closing of the Secretary's office. Accordingly, we respectfully request that the Board accept this filing tendered one business day late. Copies are being hand served upon counsel for UP and BNSF; and accordingly, they will not experience any prejudice from the late receipt of these comments. We have conferred with counsel for both carries, and they advise they will interpose no objection.

As set forth in footnote 1 to the Comments, the issues raised by AECC also is

relevant to the Board in conjunction with the Major Rail Consolidations Rulemaking, Ex Parte No. 582 (Sub-No. 1). Accordingly, as set forth in footnote 1, AECC respectfully submits that the comments be accepted and considered in conjunction with that proceeding, as well.

A copy of these comments is associated herewith in a floppy disk in WordPerfect 7.0 format.

Respectfully submitted,

Martin W. Bercovici

Enclosures

cc: J. Michael Hemmer – Counsel for UP/SP
Erica Z. Jones – Counsel for BNSF

ORIGINAL 199562

AECC-1

BEFORE THE

SURFACE TRANSPORTATION BOARD
Washington, DC 20423

In the Matter of:	)	
	)	**STB Ex Parte No. 582 (Sub-No. 1)**
Public Views on Major Rail Consolidations	)	
	)	
	)	
Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Company—Control and Merger—Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., and the Denver and Rio Grande Western Railroad Company	)	**~~STB Finance Docket No. 32760~~ (Sub-No. 21) General Oversight**

COMMENTS OF
ARKANSAS ELECTRIC COOPERATIVE CORPORATION

Arkansas Electric Cooperative Corporation ("AECC") respectfully submits its comments to the Surface Transportation Board addressing the competitive implications of trackage rights arrangements in merger proceedings, specifically as those arrangements have functioned in the UP/SP merger proceeding, and also generically, as the Board considers its policies with regard to future major railroad consolidations.[1]

[1] AECC recognizes that the comment date in the initial phase of the Ex Parte No. 582 (Sub-No. 1) proceeding has passed, and the Commission is in the process of developing a notice of proposed rulemaking to be issued in the Fall. Inasmuch as the comments being submitted in the UP/SP merger oversight are relevant to the general issues being addressed by the Board in the Ex Parte No. 582 (Sub-No. 1) rulemaking, AECC submits these comments in the rulemaking proceeding as well, and respectfully requests the Board to consider these comments in the development of its Notice of Proposed Rulemaking.

I. STATEMENT OF INTEREST

AECC is a membership-based generation and transmission cooperative that provides wholesale electric power to electric cooperatives, which in turn serve approximately 400,000 customers located in each of the 75 counties in Arkansas. In order to serve its member distribution cooperatives, AECC has entered into arrangements with other utilities within the state to share generation and transmission facilities. The largest of AECC's generation assets are its ownership interests in the White Bluff and Independence coal-fired steam generation plants. AECC has a 35 percent interest in each of these plants. Entergy Arkansas, Inc., is the majority owner and also the operator of these plants.

In discharge of its fiduciary duty to its members with regard to its ownership interest in the White Bluff, Independence and other power plants, and to assure efficiency in the supply of fuel to those plants, AECC monitors the terms of fuel supply and coal transportation. Through the review of data filed with the Federal Energy Regulatory Commission and other sources, AECC seeks to assure that the cost of electric power generation at the plants in which it has an interest is competitive with the cost incurred by other utilities. This is of growing importance as the electric utility industry is becoming open to competition.

With specific reference to the White Bluff plant at Pine Bluff, Arkansas, the Surface Transportation Board protected the opportunity for competitive rail service through a build-in/build-out condition imposed in the UP/SP merger proceeding.[2] Entergy has moved forward to implement the build-in/build-out condition, through

[2] *Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Railroad Company-Control and Merger-Southern Pacific Rail Corporation Southern Pacific Transportation Company, St. Louis Southwestern Railroad Company, SPCSL Corporation, and The Denver and Rio Grande Western Railroad Company*, Finance Docket No. 32760 (hereinafter *UP/SP*), Decision No. 44 at 185 (served Aug. 12, 1996); Decision No. 88 (served Mar. 21, 2000).

seeking exemption from the Board for the line construction.[3] AECC sought, and was granted, leave to intervene in the White Bluff exemption.[4] This build-out, if constructed, will provide the physical capability for BNSF to directly compete with Union Pacific for coal movements to the White Bluff plant. In rendering service to White Bluff, BNSF would need to operate over approximately 145 miles of UP lines on trackage rights it obtained in the UP/SP merger (from Jonesboro to Pine Bluff, Arkansas).

II. COMMENTS

In today's coal transportation marketplace, head-to-head rail competition frequently produces rates in the range of 8 mills per net ton-mile for volume movements of Powder River Basin (PRB) coal, moving in shipper-owned cars. While the margins on such movements on a ton-mile basis are relatively low, these movements are quite profitable to the railroads due to the extremely high tonnage and distances involved. In the associated verified statement, AECC's consultant Michael Nelson establishes that under the trackage rights compensation terms approved in the UP/SP merger BNSF is constrained to pay UP a return, net of variable cost, of approximately 2.5 mills per net ton-mile for use of the trackage rights. As further established in the Nelson Verified Statement, the burden imposed on BNSF due to the trackage rights compensation terms effectively undermines BNSF's ability to fully compete with UP in coal transportation, and thereby to replicate the pre-merger UP/SP competition.[5] This is particularly demonstrated by Nelson in evaluation of Colorado/Utah coal movements, where BNSF -- unlike in the PRB -- does not have an independent presence absent the trackage rights over the UP lines.

---

[3] *Entergy Arkansas and Entergy Rail-Construction and Operation Exemption-White Bluff to Pine Bluff, AR*, STB Finance Docket No. 33782 (served May 4, 2000).

[4] *Id.*, Served June 30, 2000.

[5] AECC notes that in its July 3, 2000 quarterly progress report, BNSF describes its Central Corridor operations solely in terms of merchandise trains. BNSF-PR-16 at 410-11. *See also* Attachment 1 to BNSF-PR-16, reflecting BNSF operations on Central Corridor trackage rights, which reflects no unit coal train service.

The burden of the trackage rights compensation arrangements apply equally to BNSF whether the trackage rights are utilized for the origin portion of the movement – as for Colorado Utah coal, or whether the trackage rights are utilized at destination – as would occur in serving the White Bluff plant. AECC is concerned, therefore, whether BNSF will, in fact, be fully competitive with UP when the build-out from the White Bluff plant is competed.

III. RELIEF REQUESTED

The Board established the UP/SP merger oversight process to facilitate the identification and remediation of competitive problems occurring as result of the merger. While AECC recognizes that the Board addressed trackage rights compensation in the UP/SP merger, nonetheless as detailed in the Nelson Verified Statement, certain of the assumptions made by the Board have not been realized. Accordingly, AECC respectfully requests the Surface Transportation Board to evaluate whether the terms of trackage rights compensation approved by the Board fully enable BNSF to replicate pre-merger UP/SP competition for movement of western coal, and to revise the compensation terms to a level appropriate to assure the preservation of pre-merger competition.

AECC further respectfully requests the Surface Transportation Board, in the Ex Parte No. 582 (Sub-No. 1) rulemaking addressing railroad merger policy, to provide that for trackage rights granted in any future merger compensation will be set at a level which assures maintenance of pre-merger competition, based upon an evaluation of marketplace economics rather than solely based upon formulas as historically practiced by the Board and its predecessor.

Respectfully submitted,

Martin W. Bercovici
Keller and Heckman
1001 G Street, N.W.
Suite 500 West
Washington, DC 20001
(202) 434-4144
Attorney for Arkansas Electric Cooperative Corporation

August 18, 2000

CERTIFICATE OF SERVICE

I, Jean M. Bethea, hereby certify that a copy of the foregoing COMMENTS is being served by hand upon the following parties to the UP/SP Oversight Proceedings:

J. Michael Hemmer
Covington & Burling
1201 Pennsylvania Avenue, N.W.
Washington, DC 20004-2401
Attorney for Union Pacific Corporation,
Union Pacific Railroad Company and
Southern Pacific Rail Corporation;

and

Erica Z. Jones
Mayer, Brown & Platt
1909 K Street, N.W.
Washington, DC 20006
Attorney for The Burlington Northern and Santa Fe
Railway Company;

and by first class mail, postage prepaid on all parties of record in STB Docket Ex Parte No. 582 (Sub-No. 1).

Jean M. Bethea

Dated: August 21, 2000

VERIFIED STATEMENT
OF
MICHAEL A. NELSON

1. Qualifications

My name is Michael A. Nelson. I am an independent transportation systems analyst with over 18 years experience advising clients on rail transportation issues. My office is in North Adams, Massachusetts. Prior to February 1984, I was a Senior Research Associate at Charles River Associates, an economic consulting firm in Boston, Massachusetts.

I have directed or participated in numerous consulting assignments and research projects in the general field of transportation. My work typically involves developing and applying methodologies based on operations research, microeconomics, statistics and/or econometrics to solve specialized analytical problems. For example:

- I recently submitted a statement to this Board on behalf of the Committee to Improve American Coal Transportation (IMPACT) in Ex Parte 582 (Sub-No. 1), addressing a wide range of issues related to rail merger policy.

- I provided testimony before this Board regarding my analysis of the proposal of the Dakota, Minnesota & Eastern Railroad (DM&E) to construct a third rail access to the Powder River Basin (Finance Docket No. 33407).

- I also provided testimony before this Board regarding the appropriate definition of Amtrak's "express" service (Finance Docket No. 33469).

- I assisted Canadian Pacific in assessing the diversion impacts, competitive issues and potential remedial conditions associated with the proposed division of Conrail between NS and CSX (Finance Docket No. 33388).

- I advised the Moffat Tunnel Commission (Colorado) regarding factors affecting future rail use of that tunnel.

- I provided testimony regarding competitive and/or statistical issues in six railroad merger proceedings before the Interstate Commerce Commission, including control of C&NW by Union Pacific (Finance Docket No. 32133), the acquisition by Rio Grande Industries of portions of the CM&W and Soo Line railroads (Finance Docket Nos. 31522 and 31505, respectively), the consolidation of Southern Pacific with DRGW (Finance Docket No. 32000), the acquisition of MKT by Union Pacific (Finance Docket No. 30800), and extensive testimony regarding the anticompetitive effects of the proposed merger of Southern Pacific and Santa Fe (Finance Docket No. 30400).

I have also provided extensive testimony regarding methods for analyzing the cost structure of the U.S. Postal Service in five dockets before the Postal Rate Commission. In addition, I have assisted in the preparation of numerous other verified statements presented before various regulatory and legal bodies, and authored many technical reports and articles in transportation journals.

I received my bachelor's degree from the Massachusetts Institute of Technology in 1977. In 1978, I received two master's degrees from MIT, one in Civil Engineering (Transportation Systems) and one from the Alfred P. Sloan School of Management, with concentrations in economics, operations research, transportation systems analysis and public sector management. My curriculum vitae is attached as Exhibit A.

2. Subjects Covered in This Statement

I have been asked by Arkansas Electric Cooperative Corporation to analyze various issues related to the compensation terms established for operation over the trackage rights granted by this Board in its approval of the UP/SP merger. In this statement I specifically discuss the following:

- At least in the context of western coal transportation, the trackage rights lines have not

functioned in the manner that was envisioned at the time of their creation;

- For western coal, the terms of trackage rights compensation in UP/SP are inconsistent with railroad competitive practices, market realities, and the stated purpose of the trackage rights; and,

- The adverse impact of excessive trackage rights fees extends beyond western bituminous coal, and in some circumstances inhibits competition between BNSF and UP in the supply of PRB coal.

Each of these is discussed below.

3. **At least in the context of western coal transportation, the trackage rights lines have not functioned in the manner that was envisioned at the time of their creation.**

Subsequent to the SP/DRGW merger in the late 1980's, SP aggressively marketed low-sulfur bituminous coal from former DRGW-served mines in Colorado and Utah. For the period from that merger to the UP/SP merger (1988-1996), the growth rate for Colorado and Utah coal production in the aggregate (5.4% annually) was only slightly lower than the explosive growth of Wyoming coal production during the same period (6.6%).

Even these production figures understate the significance of SP's initiatives. In particular, competition by SP fueled a major increase in the flow of Colorado and Utah coal to power plants spread over a large area east of Colorado, ranging from Wisconsin in the upper midwest to Texas in the south. As shown in Table 1, this volume had more than tripled in the 4-year period preceding the UP/SP merger, and far exceeded the corresponding growth rate for PRB coal.

Table 1 - Colorado/Utah Utility Steam Coal Movements to Plants East of Colorado

Origin	1992	1996
Colorado	4039	9612
Utah	339	3937
Total	4378	13549

Source: FERC Form 423.

In its decision approving the merger, the Board relied explicitly on the premise that the newly-created Utah Railway-BNSF route would prevent competitive harm for western bituminous coal flows. Indeed, the Board projected that this new route - which relies on approximately 450 miles of trackage rights over the former DRGW to connect Utah Railway with BNSF at Denver via Grand Junction, CO - would "intensify competitive options for Uinta Basin coal shippers" and enable Utah producers to "gain important new rail access to midwestern and eastern markets".

Unfortunately, the Utah-BNSF route has not provided a viable competitive option, and the market influence provided by SP has largely vanished. After the consummation of the UP/SP merger, Colorado/Utah coal movements to the east were immediately de-emphasized, and had declined by over 8% by 1998. Many plants that previously were substantial and growing users of Colorado/Utah coal have been converted in part or entirely to PRB coal.[1] Aggregate Colorado/Utah coal production is now at approximately the level it was at in 1996, but is declining at an accelerating rate. In the meantime, Wyoming production has increased more than 20%.

Data presented in these oversight proceedings have consistently shown that there are essentially no coal movements that utilize the Utah-BNSF route. This absence of traffic reflects the inability of eastern utilities and power producers to secure competitive transportation terms for movements from preferred sources served via the Utah-BNSF route. In short, the Utah-BNSF route, which relies

[1] Such conversions appear to violate the assumptions made by the STB regarding the substitutability of western bituminous and PRB coals, and the incentives of UP and BNSF absent the preservation of SP's competitive influence.

heavily on trackage rights established in UP/SP, has not been effective in protecting competition in the supply of western bituminous coal.

4. **For western coal, the terms of trackage rights compensation in UP/SP are inconsistent with railroad competitive practices, market realities, and the purpose of the trackage rights.**

Western coal is highly rail-dependent, and typically moves in trainload quantities of 10,500-14,000 or more tons over long distances (often 1,000 miles or more). Annual movements to individual plants frequently exceed 1 million tons, and 1 billion ton-miles. For shippers, the cost of transportation may exceed the mine-mouth price of the coal, often by a wide margin. As a result, even small changes in rates on a per ton-mile basis may have major impacts on shippers, and be instrumental in defining the effective market area for different types of western coal.

For the railroads, the immense quantity of ton-miles associated with western coal movements make it possible for substantial contribution to be earned at relatively low mark-ups over variable cost. In circumstances where head-to-head rail competition occurs, rail rates in the range of 8 mills per *net* ton-mile or less can be observed, at least for high-volume contract unit train movements in shipper-owned cars.[2]

The trackage rights compensation terms adopted in the UP/SP merger decision implicitly require a contribution (i.e., return element net of variable costs) of approximately 1.6 mills per *gross* ton-mile. For a 125-car train loaded at 120 tons/car, this equates to approximately 2.5 mills per *net* ton-mile. In other words, the trackage rights compensation terms would require that a 1200 mile move to a plant consuming 6 million tons of coal annually generate a return element of $18 million annually.

Of course, there would appear to be few if any circumstances under which a railroad could earn a return of

[2] Such rates demonstrate that selected western coal movements constitute a major exception to the Board's stated belief (at page 143 of the UP/SP decision) that most traffic moving on rates close to variable costs is protected by intermodal competition.

2.5 mills per ton-mile on rates of 8 mills or less. The 8 mill (and lower) rates result from the fact that a rational competing railroad operating an independent parallel system is often willing to bid on a volume coal movement at a rate that provides a return element of less than 2.5 mills in order to secure the business. For example, even with a return element of 1.25 mills, the movement described above would still generate a return of $9 million annually.

Even in a duopolistic supply environment for PRB coal, shippers at competitive points are often able to obtain rates that provide a lower return than that embodied in the trackage rights compensation. However, if one of the two competitors knows that the other is constrained to earn a return element of $18 million, it will have no reason to bid rates that - all else equal - provide a return element of much under $18 million. Under the trackage rights compensation formula, the shipper pays rates that annually may be millions of dollars higher than the competitive level.

More generally, current trackage rights compensation constrains the tenant to price at a level that may be significantly higher than the price that would be quoted by a rational independent competitor for the same traffic. In this context, it is important to remember that the trackage rights generally are providing access only for shippers and points that enjoyed pre-merger head-to-head rail competition. Traffic associated with such points is precisely the traffic that tends to move at the lowest margins over variable cost. When the tenant is not allowed to serve traffic at exclusive points, the primary function of the trackage rights is to enable the tenant to replicate the pre-merger conduct of an independent competitor at competitive points. Forcing the tenant to earn a supra-competitive return on such traffic provides a de facto rate increase for the landlord railroad, and deprives the shipper of a portion of the competitive pressure that would be present if not for the merger.

5. **The adverse impact of excessive trackage rights fees extends beyond western bituminous coal, and in some circumstances inhibits competition between BNSF and UP in the supply of PRB coal.**

In the context of western coal supply, trackage rights compensation issues affect the ability of BNSF to compete

for PRB coal movements, as well as bituminous coal from the Central Corridor. For example, this Board (in Finance Docket No. 33782) recently approved Entergy's proposed build-out from the White Bluff plant, which is owned by Entergy, AECC and others. The build-out prospectively will introduce head-to-head rail competition at this plant. However, to reach the buildout, BNSF must traverse approximately 145 miles of trackage rights over the former SP line from Jonesboro to Pine Bluff, AR. With an annual burn of approximately 6.1 million tons at this plant, Entergy and its co-owners pay over $2.2 million annually due solely to the return element of the trackage rights compensation formula, even though the buildout would create a competitive environment that should be conducive to a lower return element. As a result, White Bluff will be unlikely to realize the full benefits of the competition BNSF would be able to supply if it were not constrained by the return element of the trackage rights compensation formula.

6. Recommendation

In establishing trackage rights compensation terms, the Board should account for the degree to which traffic moving over such rights (which by definition is subject to competition) makes a contribution to overhead and profit that is different from other traffic. In those circumstances, trackage rights compensation needs to replicate the costs considered by a carrier in making rates for its most competitive traffic, and not the entirety of traffic that may make use of a given line. Forcing an arbitrarily high contribution through trackage rights compensation nullifies the ability of the trackage rights tenant to replicate the low mark-ups over variable cost that are characteristic of the competitive traffic for which trackage rights are imposed.

Exhibit A

CURRICULUM VITAE
OF
MICHAEL A. NELSON

MICHAEL A. NELSON

130 Franklin Street
North Adams, MA 01247

EDUCATION

M.S. Civil Engineering, Massachusetts Institute of Technology

M.S. Management, Alfred P. Sloan School of Management, Massachusetts Institute of Technology

B.S. Management, Massachusetts Institute of Technology

Concentrations in transportation systems, economics and operations research.

EXPERIENCE

Mr. Nelson is an independent transportation systems analyst. He provides management and economic consulting and litigation support. His work typically involves developing and applying methodologies based on operations research, microeconomics, statistics and/or econometrics to solve specialized analytical problems, as illustrated by the following examples of his experience:

A. Railroad

On behalf of the Committee to Improve American Coal Transportation (IMPACT), Mr. Nelson submitted a statement to the Surface Transportation Board (STB) in Ex Parte 582 (Sub-No. 1). This statement addressed a wide range of issues related to rail merger policy.

For a major Class 1 railroad, Mr. Nelson assisted senior management staff in the design and evaluation of a potential construction project.

For the Mid-States Coalition for Progress (a group of landowners), Mr. Nelson analyzed the proposal by the Dakota, Minnesota and Eastern Railroad (DM&E) to construct an extension of its line into the Powder River Basin coal

fields of Wyoming. Mr. Nelson developed estimates of DM&E's volumes and unit revenue levels on the basis of a plant-by-plant analysis, taking into account likely future market conditions and the competitive capabilities of the Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) systems. Mr. Nelson's analysis was filed at the STB (Finance Docket No. 33407).

For the National Railroad Passenger Corporation (AMTRAK), Mr. Nelson investigated issues related to the definition of "express" traffic that AMTRAK is permitted to carry (STB Finance Docket No. 33469). Mr. Nelson analyzed relevant data from the STB Rail Waybill Sample and the Census of Transportation, and investigated the factors affecting use of Amtrak by the U.S. Postal Service. The definition of "express" eventually adopted by the STB was consistent with Mr. Nelson's findings.

For the Moffat Tunnel Commission (Colorado), Mr. Nelson analyzed the factors affecting future railroad use of that tunnel, which traverses the Continental Divide and serves the principal Colorado coal fields on the UP line that formerly was the Denver and Rio Grande Western Railroad (DRGW) main line west of Denver. The tunnel had historically been owned by the Commission (and leased to the railroad), but under sunset legislation was being offered for public sale. Mr. Nelson's analysis included study of the utilization of Colorado/Utah vs. PRB coals in the context of the central corridor conditions imposed by the STB in the merger of UP with Southern Pacific (SP).

For Canadian Pacific Railway (CP), Mr. Nelson performed detailed studies of competitive and traffic issues associated with the acquisition and break-up of Conrail by Norfolk Southern and CSX (Finance Docket No. 33388). These studies included analyses of competitive issues in the area served by the former Delaware and Hudson (now a CP subsidiary) and in the midwest, competitive issues involving coal traffic throughout the Conrail service area, and traffic impacts associated with potential remedial conditions. CP relied upon the results of Mr. Nelson's studies in reaching its settlements with Applicants in that case.

For SP, Mr. Nelson provided expert testimony before the Interstate Commerce Commission (ICC) in Finance Docket No. 32133 (the proposed control of C&NW by UP). This testimony

was based primarily on Mr. Nelson's analyses of data from the Rail Waybill Sample, which identified substantial numbers of specific flows for which the proposed transaction created different types of potential competitive problems (including losses of point-to-point competition, source competition, competition in grain originations, and shipper leverage). In addition, Mr. Nelson's testimony utilized Rail Waybill Sample data to demonstrate the occurrence of merger-related foreclosure from previous UP acquisitions, and provided statistical support for SP's traffic study. Mr. Nelson also conducted a detailed investigation of the impact of the merger on source competition for western coal.

For Rio Grande Industries (RGI), Mr. Nelson provided expert testimony before the ICC in Finance Docket No.'s 31505 (the proposed acquisition by RGI of Soo's Kansas City - Chicago line) and 31522 (the proposed acquisition by RGI of the Chicago, Missouri and Western line between St. Louis and Chicago) based on his analysis of Rail Waybill Sample data. This testimony involved analysis of potential cumulative anti-competitive effects from the proposed transactions, development of time-series estimates of rail traffic volumes and carrier shares in different flows, and assessment of the statistical reliability of the portions of the testimony of other RGI witnesses that were based on Rail Waybill Sample data.

Also for RGI, Mr. Nelson provided expert testimony before the ICC in Finance Docket No. 32000, the consolidation of SP and DRGW. This testimony involved analysis of Rail Waybill Sample data to determine rail traffic volumes in different flows, the statistical reliability of studies conducted by other RGI witnesses, and potential competitive problem flows associated with a consolidation of SP and KCS.

For DRGW, Mr. Nelson provided expert testimony before the ICC in Finance Docket No. 30800 (the acquisition of MKT by UP) based on his analysis of Rail Waybill Sample data. This testimony involved examination of intramodal competition in the central corridor, development of traffic flow databases utilized by other witnesses, assessment of the statistical reliability of other witnesses' studies, and analysis of issues related to use of market share data from waybill samples to evaluate the competitive impact of the proposed merger.

Also for DRGW, Mr. Nelson provided extensive expert testimony before the ICC regarding a number of issues raised by the proposed merger of SP with ATSF (Finance Docket No. 30400):

* Mr. Nelson provided a detailed comparison of the economic and operating characteristics of the intercity trucking and railroad industries, with a particular focus on long-haul markets. Mr. Nelson's analysis of the trucking industry utilized the National Motor Transport Data Base (NMTDB). For this study, Mr. Nelson developed and implemented analytical techniques that compensate for the non-random sampling procedures employed in the gathering of the NMTDB, making it possible to use this source to reliably conduct studies at the industry and corridor level. The Commission adopted the results of Mr. Nelson's study verbatim in its analysis of the anti-competitive consequences of the proposed merger.

* Using the NMTDB and the Rail Waybill Sample, Mr. Nelson analyzed the extent to which rail pricing and services on selected traffic are determined by competing intercity trucking alternatives available to shippers. This analysis was conducted at a highly detailed level, and included explicit accounting for the handling characteristics of each rail commodity and the operating economics of the corresponding truck equipment needed.

* Mr. Nelson analyzed the tests applied by various economists in the proceedings, including those of the U.S. Departments of Justice and Transportation, to identify rail traffic that would most likely be subject to anti-competitive effects in the wake of the proposed merger. Mr. Nelson identified circumstances under which these tests systematically yield invalid results, and provided guidelines for their proper application.

* Mr. Nelson identified improvements needed in the merger applicants' initial methodology for estimating the rail traffic diversions that likely would result from the proposed merger.

* In addition to this expert testimony, Mr. Nelson served as principal investigator for several studies underlying testimony offered by other witnesses, addressing issues related to intramodal (rail) competition, product

and source competition, shipper benefits and leverage and trackage rights compensation. Mr. Nelson also conducted a number of special studies on request for other witnesses and counsel.

For a private client, Mr. Nelson participated in a study of the purchase and utilization of jumbo covered hopper cars by shippers and railroads. This study involved extensive analysis of the Rail Waybill Sample and other data sources, and included a detailed examination of historical car shortages in light of economic and traffic conditions, and other related factors. The results of Mr. Nelson's work were incorporated in testimony before the ICC.

As a subcontractor to consulting firms, Mr. Nelson has participated in a number of other rail-related studies. These include (1) analysis of Rail Waybill Sample data to address issues stemming from traffic protective conditions at the Jacksonville (FL) gateway between FEC and CSX, and (2) analysis of CN's Port Huron-Sarnia tunnel project and the alternative of a tunnel at Detroit-Windsor.

B. Postal Service

For Magazine Publishers of America (MPA), Mr. Nelson analyzed several issues related to the transportation costs incurred by the Postal Service in its movement of periodicals. This included identification of feasible cost reductions and efficiency improvements, as well as development of needed refinements in the methods used by the Postal Service to analyze transportation costs. The results of this work were presented to the Postal Rate Commission (PRC) in the R2000-1 omnibus rate case.

Mr. Nelson identified and developed opportunities for a major publisher to create more efficient and desirable price/service options by avoiding selected costs in its mailings of periodicals. This work included consideration of transportation, delivery and unfunded retirement liability costs.

For Foster Associates (under contract to the Postal Service), Mr. Nelson worked in the following areas:

* Delivery costing - Mr. Nelson developed a series of refinements in delivery cost analysis procedures. These refinements included analysis of driving time on motorized

letter routes, collection costing and extensive revision of costing for special purpose routes and special delivery messengers. In support of the new methodologies, Mr. Nelson developed data collection plans and assisted in the development of survey instruments and innovative procedures to gather new field data from carrier and messenger operations. He conducted extensive analysis of the new data, including development of data cleaning and weighting procedures, analysis program logic, and specifications for new econometric models. He also identified an overlap in costing systems that produced a "double-count" of delivery activity performed by personnel other than special delivery messengers but charged to LDC 24 (Cost Segment 9). He developed spreadsheet modifications needed to incorporate the costing refinements and new data, and eliminate the "double-count" problem. The results of Mr. Nelson's delivery costing work were presented before the PRC in the R97-1 omnibus rate case. The PRC adopted 9 out of 10 of Mr. Nelson's recommended methodological changes, 2 with commendations.

* New products - Mr. Nelson identified the cost basis for a number of potential new product offerings involving Express Mail and Priority Mail, and developed the analytical framework and information needed to support their implementation. This included design and analysis of a new field study of relevant Express Mail piece characteristics, which was also presented by Mr. Nelson in the R97-1 rate case.

* Litigation support - In Docket No. R94-1, Mr. Nelson reviewed intervenor testimony regarding city delivery carrier and transportation issues, and developed discovery and cross-examination topics for Postal Service counsel.

* IOCS - Mr. Nelson developed refinements in IOCS data gathering procedures to improve the validity and precision of available information regarding Express Mail activities. Mr. Nelson then interpreted the initial results from the new data and provided suggestions for improvements in Express Mail costing procedures.

* Postal AMR - Mr. Nelson developed a plan for analyzing the street time costs associated with a proposal to have postal vehicles perform automated meter reading for utility companies.

* Eagle Network - Mr. Nelson developed a potential methodology for attributing the costs of dedicated air transportation services procured by the Postal Service.

For United Parcel Service (UPS), Mr. Nelson provided extensive expert testimony before the PRC in Docket No. R90-1. This testimony presented Mr. Nelson's studies of cost causality and/or elasticity within the city delivery carrier, special delivery messenger, vehicle service driver, purchased highway transportation and expedited air network operations of the Postal Service. These studies, which involved application of operations research techniques and development of econometric models and other statistical analyses based on postal data, were referenced and relied upon extensively by the PRC in its Opinion and Recommended Decision. To a considerable degree, these studies represented extensions and refinements of Mr. Nelson's previous studies, which were presented before the PRC in Mr. Nelson's testimony in Docket No. R87-1, and in Docket No. RM86-2B, a rulemaking proceeding established in part to explore issues raised in testimony before the PRC in Docket No. R84-1 for which Mr. Nelson served as principal investigator.

C. Other

Mr. Nelson participated in an airport master planning study for Sydney, Australia. For this study, he developed a comprehensive set of site selection criteria and evaluation measures.

Until February 1984, Mr. Nelson was a Senior Research Associate at Charles River Associates (CRA), an economic research and consulting firm, where his work experience included the following:

Freight Transportation

Mr. Nelson served as Manager of Consulting Services for the National Motor Transport Data Base (described above), which at the time was sponsored by CRA. In this position, he was responsible for handling client requests for information from the database, including problem definition, sampling issues, conduct of analyses and reporting of results. He conducted specific analyses for a number of public and private clients.

Mr. Nelson served as principal investigator for a study of motor carrier safety and traffic characteristics. This study involved extensive analysis of a number of databases, including the FHWA "Loadometer" Study, the 1977 Census of Transportation, the ICC "Empty/Loaded" Survey, and the NMTDB. The results of his work were incorporated in testimony before the U.S. District Court on behalf of a private client engaged in litigation with a state over the use of twin trailers.

Mr. Nelson participated in several other projects providing support for motor carriers involved in litigation cases. For these clients he performed detailed financial analyses of motor carrier operations and traffic in different settings, and assisted in the preparation of testimony and briefs. Mr. Nelson also served as an internal consultant on a number of CRA's other motor carrier, railroad, and freight transportation studies.

For the U.S. Department of Transportation (DOT), Mr. Nelson was principal investigator of a study to develop a conceptual framework and data collection strategy for analyzing the impacts of the motor carrier regulatory reforms implemented under the Motor Carrier Act of 1980. For this project, Mr. Nelson was responsible for identifying and selecting specific research issues, data requirements, data sources and analytical techniques.

In a study for the Office of the Secretary of Transportation, Mr. Nelson made extensive use of probabilistic modeling techniques to develop quantitative estimates of potential fuel conservation resulting from selected aspects of proposed motor carrier regulatory reforms.

For DOT, Mr. Nelson was principal investigator for a study of the merits of alternative approaches that could be utilized by the ICC to implement the inflation-based index for allowable rate adjustments by railroads mandated by the by the Staggers Rail Act of 1980. For this study he analyzed the ICC's proposed approach and developed specific conclusions and recommendation in a number of issue areas, including selection of the basic index, productivity adjustments, treatment of profit and non-recurring expenses, frequency of index adjustment, rate averaging, regional differences, collective ratemaking and fuel surcharges. The results of this study were used by DOT in formulating its response to the ICC's proposed approach.

For a private client, Mr. Nelson analyzed the logistical considerations involved in siting a plant to process imported high-value mineral ores. This study, which was part of a larger study to assess the overall economic feasibility of plant construction and operation, involved comparisons of costs and other attributes of a variety of modes and modal combinations, including rail, inland waterway, motor carrier and TOFC.

In a study of urban freight consolidation alternatives conducted for the U.S. Department of Energy (DOE), Mr. Nelson utilized principles of network analysis, simulation and queuing theory to evaluate and critique the merits of previous studies, and recommend research approaches for analysis of route and terminal consolidation strategies.

Also for DOE, Mr. Nelson was a major contributor to a study of potential fuel-use changes that could occur in response to dramatic fuel price increases. Mr. Nelson's work focused on the freight and intercity passenger transportation sectors and included analyses of opportunities for improvements in fuel efficiency by each mode under different fuel price increase scenarios, as well as modal shifts and net traffic reductions caused by resulting cost (and rate) increases.

Passenger Transportation

Mr. Nelson served as principal investigator for a series of Service and Management Demonstration Evaluations conducted for DOT. For three parallel assessments of the feasibility of user-side subsidies, and one demonstration of taxicab regulatory reforms and paratransit service innovations, he

developed instruments for and implemented several surveys, conducted data analysis and prepared Final Evaluation Reports. For an assessment of alternative transit transfer policies, he developed research issues and data requirements, selected and supervised interviews of over 40 transit properties, and wrote or was responsible for all major deliverables. He assisted DOT in the development of research issues to be addressed in demonstrations of innovative checkpoint paratransit services and in the review of a proposed paratransit policy.

Also for DOT, Mr. Nelson was principal investigator of a study of methods to improve transit productivity and cost-effectiveness. This study involved the identification and documentation of 146 distinct productivity-enhancement measures that have been implemented at U.S. transit properties, assessment of the transferability of each measure to different settings, and development of impact magnitude estimates. Prior to this project, Mr. Nelson developed over two dozen ideas for possible innovations to improve transit productivity and cost effectiveness.

Mr. Nelson participated in a financing study of the New York Metropolitan Transportation Authority's proposed multi-billion dollar capital improvement program. Mr. Nelson's responsibilities in this project involved econometric analysis of operating costs, with a particular emphasis on identifying the variability of different cost components with alternative future levels of rapid rail, bus, and commuter rail activity. The results of his work were incorporated in the MTA's Official Statement for the successful initial offering of $250 million in transit revenue bonds.

For DOT, Mr. Nelson participated in a study to develop technical guidelines for use by local planners to satisfy alternatives analysis requirements. For this study he developed a matrix-based method for determining data requirements in different scenarios, and played a major role in the development of a method for generating locally responsive alternatives to high-capital transit investments using multicriteria decision techniques.

For the Massachusetts Port Authority, Mr. Nelson participated in a study to forecast future levels of passenger and air cargo activity at Logan International Airport. For this study, Mr. Nelson supervised data

collection efforts, developed methods for synthesizing data from diverse sources (FAA, CAB, Port Authority records, etc.) to yield relevant market segment size estimates, and analyzed seasonality and short-term peaking phenomena.

Mr. Nelson also participated in a quantitative assessment of the market penetration potential and associated impacts of electric vehicles for the Electric Power Research Institute (EPRI).

Thesis

In his graduate thesis at M.I.T., which fulfilled the thesis requirements for two Master's degrees, Mr. Nelson developed a comprehensive review of the theoretical and practical shortcomings encountered in the use of linear programming in a real time multiple vehicle routing and scheduling system (dial-a- ride). Based on network analysis techniques, he then developed a set of heuristic algorithms that avoided the shortcomings inherent in the linear programming (LP) approach. The performance of these algorithms was simulated by computer and found to meet or exceed the LP's performance in a variety of scenarios drawn from actual operating data.

TESTIMONY

Postal Rate Commission, Docket No. R2000-1

- Direct Testimony, MPA-T-3, 5-22-00

Surface Transportation Board, Ex Parte 582 (Sub-No. 1)

- Statement, 5-16-00

Surface Transportation Board, Finance Docket No. 33407

- Verified Statement, 8-31-98

- Supplemental Verified Statement, 10-28-98

Surface Transportation Board, Finance Docket No. 33469

- Verified Statement, 11-10-97

- Reply Verified Statement, 11-25-97

Postal Rate Commission, Docket No. R97-1

- Direct Testimony, USPS-T-19, 7-10-97

Interstate Commerce Commission, Finance Docket No. 32133

- Verified Statement, SP-20 (Volume 2), 11-29-93

- Rebuttal Verified Statement, SP-41 (Volume 2), 7-28-94

Postal Rate Commission, Docket No. R90-1

- Direct Testimony, UPS-T-1, 7-16-90

- Rebuttal Testimony, UPS-RT-1, 10-1-90

Interstate Commerce Commission, Finance Docket No. 31505

- Verified Statement, RGI-14/SOO-14 (Volume 2), 9-15-89

- Rebuttal Verified Statement, RGI-55/SOO-55, 2-15-90

Interstate Commerce Commission, Finance Docket No. 31522

- Verified Statement, RGI-7/CMW-7 (Volume 2), 8-25-89

Interstate Commerce Commission, Finance Docket No. 32000

- Verified Statement, RGII-10, 2-22-88

- Verified Opposition and Rebuttal Statement, RGII-59, 6-1-88

Postal Rate Commission, Docket No. R87-1

- Direct Testimony Concerning Special Delivery Messenger and City Delivery Carrier Street Time Costs, UPS-T-1, 9-14-87

- Rebuttal Testimony, UPS-RT-5, 11-23-87

- Statement Regarding SDWAFS Analyses, 12-1-87

Interstate Commerce Commission, Finance Docket No. 30800

- Verified Statement, DRGW-13, 4-7-87

- Verified Statement, DRGW-24, 7-13-87

Postal Rate Commission, Docket No. RM86-2B

- Direct Testimony Concerning City Delivery Carrier Street Time Costs, UPS-T-1, 12-1-86

Interstate Commerce Commission, Finance Docket No. 30400

- Verified Opposition Statement, DRGW-20, 11-21-84

- Verified Opposition Statement, DRGW-23, 12-10-84 (with Paul H. Banner)

- Verified Rebuttal Statement, DRGW-33, 5-29-85

SELECTED PUBLICATIONS

Reports Prepared for Charles River Associates

User-Side Subsidy Demonstration Project: Lawrence, Massachusetts. Final Evaluation Report. Prepared for U.S. Department of Transportation. October, 1983.

Analysis of Labor Conditions and Union Status in the Intercity Trucking Industry. Final Report. Prepared for U.S. Department of Transportation. August, 1983.

Actions Being Taken by Transit Operators to Improve Performance.
Final Report. Prepared for U.S. Department of Transportation. April, 1983.

User-Side Subsidy Demonstration Project: Montgomery, Alabama.
Final Evaluation Report. Prepared for U.S. Department of Transportation. December, 1982.

Plan for Monitoring the Impacts of Regulatory Reforms Implemented Under the Motor Carrier Act of 1980. Final Report. Prepared for U.S. Department of Transportation. October, 1982.

New York City Transit Authority Revenue Feasibility Study: Economic Analyses and Projections. Final Report. Prepared for Metropolitan Transportation Authority, New York, NY. In part. October, 1982.

Taxi Regulatory Revisions in Dade County, Florida. Data Collection Plan. Prepared for U.S. Department of Transportation. April, 1981.

Analysis of Rail Cost-Plus Pricing Systems. Prepared for U.S. Department of Transportation. March, 1981.

Net Demand for Oil Imports: Preliminary Estimates of Short-Run Price Elasticities. Prepared for the U.S. Department of Energy. In part. December, 1980.

User-Side Subsidy Demonstration Project: Kinston, North Carolina. Final Evaluation Report. Prepared for U.S. Department of Transportation. October, 1980. Executive Summary reprinted in Taxicab Management November/December, 1981.

Potential Fuel Conservation from Regulatory Reform of the Trucking Industry. Prepared for Office of the Secretary of Transportation. July, 1980.

Operator Guidelines for Transfer Policy Design. Prepared for U.S. Department of Transportation. June, 1980.

State of the Art of Current Practices for Transit Transfers. Prepared for U.S. Department of Transportation. June, 1980.

"Generation of Transportation Alternatives." Technical Monograph prepared for U.S. Department of Transportation. January, 1979.

"Definition of Transportation Alternatives." Technical Monograph prepared for U.S. Department of Transportation. November, 1978.

Preliminary Analysis of Alternative Proposals to Encourage Efficient Service Concepts in Urban Freight Movement. Prepared for U.S. Department of Energy. In part. October, 1978.

Other Publications

Nelson, Michael and Daniel Brand. 1982. "Methods for Identifying Transportation Alternatives." Transportation Research Record 867.

Nelson, Michael, Daniel Brand and Michael Mandel. 1982. "State of the Art Current Bus Transfer Practices." Transportation Research Record 854.

Nelson, Michael and Jane Piro. March, 1982. "Implementation and Impacts of the Kinston, North Carolina User-Side Subsidy Demonstration Project." Specialized Transportation Planning and Practice.

Nelson, Michael and Paul H. Banner. 1981. "Analysis of Alternative Railroad Cost Recovery Procedures." Proceedings - Twenty-Second Annual Meeting of the Transportation Research Forum.

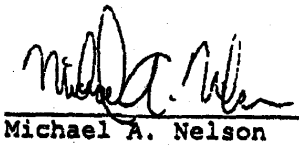
Nelson, Michael, Daniel Brand and Michael Mandel. 1981. "Use and Consequences of Timed Transfers on U.S. Transit Properties." Transportation Research Record 798.

Mellman, Robert, Michael Nelson and Jane Piro. 1980. "Forecasts of Passenger and Air Cargo Activity at Logan International Airport." Transportation Research Record 768.

Nelson, Michael. 1978. "Evaluation of Potential Replacements for Failing Conventional Transit Services." M.S. Thesis, Massachusetts Institute of Technology, Department of Civil Engineering and Alfred P. Sloan School of Management.

VERIFICATION

I, Michael A. Nelson, declare under penalty of perjury that the foregoing Statement is true and correct to the best of my knowledge and belief. Further, I certify that I am qualified and authorized to file this Statement. Executed on August 18, 2000.



Michael A. Nelson